

We Claim:

1. A method for a wireless information transmission, which comprises the steps of:

radiating a broadband radio-frequency signal between a base station and a multiplicity of subscribers, the subscribers being located at different distances from the base station;

coding the broadband radio-frequency signal received in the subscribers in accordance with a code division multiple access method according to information to be transmitted resulting in a coded broadband radio-frequency signal;

modulating the coded broadband radio-frequency signal resulting in a modulated broadband radio-frequency signal;

reflecting back the modulated broadband radio-frequency signal to the base station resulting in response signals received in the base station; and

effecting a signal correlation and demodulation of the response signals received in the base station, during the signal correlation, a time offset of a correlation peak is achieved and a time of the time offset of the correlation peak is calculated in such a manner that the response signals received from the subscribers disposed at a shorter distance

to the base station are more attenuated than the response signals of the subscribers disposed at a greater distance from the base station, resulting in automatic compensation for different propagation losses between the subscribers located at the different distances from the base station.

2. The method according to claim 1, which comprises adapting a chipping rate of the broadband radio-frequency signal emitted by the base station to the different distances between the subscribers and the base station.

3. The method according to claim 1, which comprises generating the broadband radio-frequency signal in accordance with a direct sequence spread spectrum method.

4. The method according to claim 1, which comprises adapting a chipping rate of the broadband radio-frequency signal emitted by the base station to the propagation losses between the subscribers and the base station.

5. A configuration for wireless information transmission, comprising:

a base station radiating a broadband radio-frequency signal and having a transmitting device, a modulator/coder connected to said transmitting device, a receiving device and a

demodulator/decoder with a correlator connected to said receiving device; and

a multiplicity of subscribers located at different distances from said base station, each of said subscribers having a modulation device and an antenna/backscattering device for receiving the broadband radio-frequency signal and for reflecting a response signal, coded in accordance with a code division multiple access method and modulated by said modulation device in accordance with information to be transmitted, said modulation device connected to said antenna/backscattering device, said correlator of said base station performing automatic compensation for different propagation losses between said subscribers located at different distances from said base station by linking a correlation function and a propagation loss to one another in an inverse relationship.

6. The configuration according to claim 5, wherein said base station generates the broadband radio-frequency signal in accordance with a direct sequence spread spectrum method.

7. An information system for a machine having at least one of a multiplicity of sensors and a multiplicity of actuators, comprising:

a base station radiating a broadband radio-frequency signal and having a transmitting device, a modulator/coder connected to said transmitting device, a receiving device and a demodulator/decoder with a correlator connected to said receiving device; and

a multiplicity of subscribers located at different distances from said base station, each of said subscribers having a modulation device and an antenna/backscattering device for receiving the broadband radio-frequency signal and for reflecting a response signal, coded in accordance with a code division multiple access method and modulated by said modulation device in accordance with information to be transmitted, said modulation device connected to said antenna/backscattering device, said correlator of said base station performing automatic compensation for different propagation losses between said subscribers located at different distances from said base station by linking a correlation function and a propagation loss to one another in an inverse relationship.

8. The information system according to claim 7, wherein the sensors are proximity sensors.

9. The information system according to claim 7, wherein said base station generates the broadband radio-frequency signal in accordance with a direct sequence spread spectrum method.

10. The information system according to claim 7, wherein the machine is an automatic production machine.